

BRADFORD ISLAND IN WATER WORK PLAN**Amendments****1. Current Operation Technical Difficulties.**

ESA consultation with National Marine Fisheries Service and the United States Fish and Wildlife Service resulted in a work plan that included the installation of a silt screen around the perimeter of each of the 3 removal sites. Installation of the silt screens began on 11 February 2002 with pile number 3. Wind and current conditions at the site made deployment very difficult. Several attempts were made. The final attempt included 200 pound anchors, placed on the river bottom every 5 feet. These would be used to secure the bottom of the screen. The top line for the screen was anchored to the shoreline with a large boulder and on the river end with a 3,000 pound anchor. Once all anchors were set, the first section of screen was deployed. As it was being placed in the water, it began to unfurl like a giant sail and dragged the boulder off the shore. The top of the screen then disappeared underwater.

There are several problems with the screen concept. The fabric is not porous enough to pass water. (If it were more porous it would not trap sediments.) Also, there are not enough anchor points for the top of the screen. (One on each end is not enough.) It is unlikely that any kind of temporary structure such as this screen fabric could be utilized in this environment. If an anchor system that could hold the tremendous forces was designed, the fabric would tear.

2. Absence of the Silt Screen, Biological Assessment.

The purpose of the silt screen was to provide a barrier or engineering control whereby particulates in the water column would be retained inside. Turbidity monitoring, once every hour, was to be accomplished to verify that this engineering control was working. While the loss of the silt screen makes the job more difficult, a change in the turbidity monitoring plan to a real time method plus more conservative handling of the items can be substituted as the engineering controls. That is, if turbidity readings in the immediate area are within required tolerances, the impacts have been avoided to the same degree.

Past sampling efforts have shown that the dissolved phase and particulate phase PCBs do not move downstream after a disturbance, including during spill conditions (see May 2001 SPMD results). Therefore if local movement of the contaminants through turbidity monitoring can be controlled, the effects to the listed species and the overall environment should not be increased.

3. Additional Measures to be Implemented.

Turbidity monitoring immediately up-current (for background) and down-current of the work site will be implemented. The down-current monitoring will be continuous, unless a background reading is needed. Both locations will be within 50-75 feet of the location of the divers. The divers will control their movement and disturbance of the sediments to the maximum extent possible. The hoist basket shall be lined with a felt like material and the basket hoisted at a slow speed in order to minimize the distribution of sediments into the water column.

4. New Action/Coordination Plan.

The same action level of 5 NTUs above background would be utilized. A background sample would be taken at the start of the day. Continuous monitoring of the down-current location would be accomplished. If at any time the down-current reading exceeds the background reading by more than 5 NTUs, the background reading will be rechecked. If it is determined that the removal effort is the cause of the higher reading, activity will be suspended or slowed until within the allowed levels. A more intensive communication plan will also be implemented. Each days results will be forwarded to the action agencies to determine whether the removal effort is should continue as amended or whether further discussion or modifications are in order.